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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/849,377

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Hisashi Yamanaka

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EXAMINER

NINO, ADOLFO

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,377

Applicant(s)

YAMANAKA ET AL.

Examiner

Adolfo Nino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 112

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the holding section" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Daoud (US 6,095,461).

Regarding claim 1, Daoud discloses a connecting apparatus (1), comprising: a cable (3 in fig. 3) for electrically connecting an apparatus main body section (7 in fig. 2) to a section (5) rotatably supported by a hinge member (9) with respect to said apparatus main body section (7), wherein: the cable (3) is provided in parallel to a rotation axis of the hinge member so as to be held by the apparatus main body section and the section (figs. 2, 4), respectively, and the cable (3) has a half-loop shape (fig. 2).

Regarding claim 2, Daoud discloses the connecting apparatus (1) as set forth in Claim 1, wherein: the cable (3) is held by the apparatus main body section (7) and the

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section (5), via holding sections (14', 14" in fig. 6), respectively, each of the holding sections (14', 14") includes a supporting member (14', 14") having a curvature (fig. 6), and the cable (3) is supported by the supporting members (14', 14") to such an extent that frictional force occurs between the cable and the supporting members (figs. 6, 7).

Regarding claim 3, as best understood by the Examiner, Daoud discloses the connecting apparatus (1) as set forth in Claim 1, wherein: at least the holding section (5) which rotates is provided in a vicinity of the rotation axis of the hinge member (fig. 6).

Regarding claim 4, Daoud discloses the connecting apparatus (1) as set forth in Claim 1, wherein: the cable (3) is a cable bundle of a plurality of insulating coating electric wires (col. 1, lines 48-49), and the cable bundle is covered by a bundling tube (it would be the outside insulation of the cable 3).

Regarding claim 5, Daoud discloses a connecting apparatus (1), comprising: a cable (3) for electrically connecting an apparatus main body section (7) to a rotating section (5) which is provided so as to be rotatable around a rotation axis (9) with respect to the apparatus main body section (7; fig. 5); a first holding section (14'), provided in parallel to the rotation axis (9; fig. 6), which holds the cable (3) in the apparatus main body section (7); and a second holding section (14"), provided in parallel to the rotation axis (9), which holds the cable (3) in the rotating section, the cable (3) between the first (14') and second (14") holding sections forming a curve section (fig. 6).

Regarding claim 6, Daoud discloses the connecting apparatus (1) as set forth in Claim 5, wherein: the first holding section (14') includes a first supporting member (14') which is provided to cover and support the cable (fig. 6), the second holding section

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(14") includes a second supporting member (14") which is provided to cover and support the cable (fig. 6), the first and second supporting members (14', 14") support the cable (3) so as to cause friction against the cable (figs. 6, 7).

Regarding claim 8, Daoud discloses the connecting apparatus (1) as set forth in Claim 6, wherein: each of the first (14') and second (14") supporting members has such a curvature as to cover an outer surface of the cable (fig. 6).

Regarding claim 9, Daoud discloses the connecting apparatus (1) as set forth in Claim 5, wherein: the apparatus main body section (7) includes a first connector (not marked, but it would be where cable 3 is connected in section 7 as shown in fig. 2) to which the cable (3) is connected (fig. 2), the rotating section (5) includes a second connector (not marked, but it would be where cable 3 is connected in section 5 as shown in fig. 2) to which the cable (3) is connected (fig. 2), at least one bundling member (the outside insulation of cable 3) causes the cable between the first connector and the first holding section to be partially attached to a chassis of the apparatus main body section (fig. 6), and at least one bundling member (the outside of insulation of cable 3) causes the cable between the second connector and the second holding section to be partially attached to a chassis of the rotating section (fig. 6).

Regarding claim 10, Daoud discloses the connecting apparatus (1) as set forth in Claim 5, wherein: the cable (3) is an electric cable bundle of a plurality of insulating coating electric wires (col. 1, lines 48-49), and the electric cable bundle is covered with a bundling tube (the outside insulation of cable 3).

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Regarding claim 11, Daoud discloses the connecting apparatus (1) as set forth in Claim 5, wherein: the second holding section (14") of the rotating section (5) is provided in or in a vicinity of the rotation axis (fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daoud (US 6,095,461).

Regarding claim 7, Daoud discloses the connecting apparatus (1) as set forth in Claim 6, **except for** each of the first and second supporting members (14', 14") having a two-division structure constituted by halved members. It would have been obvious to

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one having ordinary skill in the art at the time the invention was made to have made the supporting members of Daoud having a two-division structure constituted by halved members, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claim 12, Daoud discloses an apparatus (fig. 2), comprising a connecting apparatus (1), said connecting apparatus (1), comprising: a cable (3) for electrically connecting an apparatus main body section (7) to a section (5) rotatably supported by a hinge member (9) with respect to said apparatus main body section (7), the cable (3) being provided in parallel to a rotation axis of the hinge member (9) so as to be held by the apparatus main body section and the section (fig. 6), respectively, and the cable (3) having a half-loop shape (fig. 6), **except for** said apparatus being an image scanning apparatus. It would have been obvious to one having ordinary skill in the art to use the connecting apparatus of Daoud in an image scanning apparatus since Daoud's connecting apparatus is to reduce wear on a wire traversing a pivot or hinge ^{such} as ^{DR 12/15/04} one used in an image scanning apparatus.

Regarding claim 13, Daoud discloses an apparatus (fig. 2), comprising: a connecting apparatus (1), said connecting apparatus (1), comprising: a cable (3) for electrically connecting an apparatus main body section (7) to a rotating section (5) which is provided so as to be rotatable around a rotation axis (9) with respect to the apparatus main body section (7); a first holding section (14'), provided in parallel to the rotation axis (9; fig. 6), which holds the cable (3) in the apparatus main body section (7);

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and a second holding section (14"), provided in parallel to the rotation axis (9), which holds the cable (3) in the rotating section, the cable between the first and second holding sections forming a curve section (fig. 6), **except for** said apparatus being an image scanning apparatus. It would have been obvious to one having ordinary skill in the art to use the connecting apparatus of Daoud in an image scanning apparatus since Daoud's connecting apparatus is to reduce wear on a wire traversing a pivot or hinge as one used in an image scanning apparatus.

Regarding claim 14, the modified Daoud discloses the image scanning apparatus as set forth in Claim 13, wherein: the connecting apparatus (1) connects an optical scanning section serving as the apparatus main body section to a sheet feeding apparatus serving as the rotating section.

Regarding claim 15, Daoud discloses a system, comprising an apparatus comprising a connecting apparatus (1), said connecting apparatus (1), comprising: a cable (3) for electrically connecting an apparatus main body section (7) to a section (5) rotatably supported by a hinge member (9) with respect to said apparatus main body section (7), the cable (3) being provided in parallel to a rotation axis of the hinge member so as to be held by the apparatus main body section and the section (fig. 6), respectively, and the cable having a half-loop shape (fig. 6), **except for** said system being an image forming system and said apparatus being an image scanning apparatus. It would have been obvious to one having ordinary skill in the art to use the connecting apparatus of Daoud in image forming system comprising an image scanning

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apparatus since Daoud's connecting apparatus is to reduce wear on a wire traversing a pivot or hinge as one used in an image scanning apparatus of a image forming system.

Regarding claim 16, Daoud discloses a system comprising an apparatus including a connecting apparatus (1; fig. 6), said connecting apparatus (1) comprising: a cable (3) for electrically connecting an apparatus main body section (7) to a rotating section (5) which is provided so as to be rotatable around a rotation axis (9) with respect to the apparatus main body section (7); a first holding section (14'), provided in parallel to the rotation axis (fig. 6), which holds the cable (3) in the apparatus main body section (7); and a second holding section (14''), provided in parallel to the rotation axis (fig. 6), which holds the cable (3) in the rotating section (fig. 6), the cable (3) between the first and second holding sections forming a curve section (fig. 6), **except for** said system being an image forming system and said apparatus being an image scanning apparatus. It would have been obvious to one having ordinary skill in the art to use the connecting apparatus of Daoud in image forming system comprising an image scanning apparatus since Daoud's connecting apparatus is to reduce wear on a wire traversing a pivot or hinge as one used in an image scanning apparatus of a image forming system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hartmann (US 6,293,504 B1) discloses a tube holder. Suzuki et al. (US 6,079,764) disclose a wiring harness. Oppperthausen (US 6,105,216) discloses a clamp assembly. Quesnel (US 6,135,398) discloses a clamp. Kafer (US 6,534,713 B2)

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discloses a cable set. Aoki et al. (US 6,700,064 B2) disclose a wiring harness arrangement assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolfo Nino whose telephone number is (571) 272-1981. The examiner can normally be reached on M-F (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A Reichard can be reached on (571) 272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AN



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